

REMARKS

The Applicants request reconsideration of the rejection.

Claims 1 and 4-16 remain pending.

Claims 1, 10, 12 and 16 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Fukumoto et al., U.S. Patent Publication No. 2003/0012139 (Fukumoto) in view of Gilbert et al., U.S. Patent No. 6,771,595 (Gilbert). The Applicants traverse as follows.

A feature of the invention claimed in claim 1 is that the statistic information collecting processor predicts the amount of packets to be received by the plurality of line card interfaces from header information imparted to the packets and from the amount of packets which have been analyzed by the statistic information collecting processor. On the basis of the amount of packets predicted, the line card interfaces for transmitting the packets are selected.

The statistic information collecting processor and its functions belong to the claimed apparatus of transmitting packets. Further, a plurality of line cards having the line card interfaces also belong to the apparatus of transmitting packets. That is, the apparatus of transmitting packets comprises the plurality of line cards and the statistic information collecting processor.

Therefore, the improved apparatus of transmitting packets is an advancement over the prior art, at least insofar as the improved apparatus has a statistic information collecting processor that predicts the amount of packets to be received by the plurality of line card interfaces from the header information and from the amount of packets which have been analyzed, wherein on the basis of the amount of packets predicted, the interfaces for transmitting the packets are selected. A high-speed, high-functional apparatus of transmitting packets results, as mentioned on

page 7, lines 1-5 of the present specification. In particular, the independent statistic information collecting processor collects the statistical information by which the allocation of packets is determined via the line card interfaces, to achieve the desired objective of load balancing, for example.

In the response to the prior Office Action, which rejected claim 1 over Gilbert in view of Fukumoto, the Applicants successfully argued to overcome the rejection. Now, Fukumoto is made the primary reference, allegedly disclosing an apparatus transmitting packets comprising line cards, switches connected to the line cards, and a processor connected to the switches, wherein the line cards have the capability to monitor/count the amount of packets during communication and determine an outgoing path in reference to a header imparted to IP packets. The Office Action notes that Fukumoto does not mention a statistic information collection function in the processor, as required by claim 1, but asserts that it would have been obvious to incorporate the teachings of a statistic information collection function of the line card into the processor to perform the same function.

Respectfully, this finding of obviousness does not constitute a prima facie case. Fukumoto assertively discloses in numerous locations that it is the line cards which determine the outgoing path from the path header, and that it is the line cards that include the counter means to count and control the number of packets or bytes in consideration with flow groups. Fukumoto neither discloses nor suggestions to the person of ordinary skill in the art that the central processing unit 3, which monitors the states of the line cards and sets information on the flow or the flow group to the line cards and outgoing path information, collects count information of each flow or flow group, and generates a counting information using the count information, should be relocated and reconfigured to perform the packet or byte count in place of the line

cards. Moreover, the deficient case for obviousness does not even assert the purpose that would be served by the central processing unit 3 performing the packet or byte count instead of the line cards.

Further, the Office Action recognizes that Fukumoto does not disclose that the central processing unit selects transmission interfaces based on a prediction of the amount of packets to be received by the line card interfaces, and thus cites Gilbert as disclosing a statistic monitoring agent and expert system that predicts future traffic patterns. To the extent that the Office Action correctly interprets Gilbert with respect to the expert system and prediction of future traffic patterns, the rejection nevertheless fails by interpreting Gilbert as selecting a NIC interface based on such predictions. The Office Action refers to col. 3, lines 38-45 and col. 4, lines 5-12, but these passages do not teach that for which Gilbert is applied. In particular, col. 3, lines 38-45 disclose that the statistic monitoring agent 32 monitors network traffic over the NIC 16, continuously for the number of transmitted and received network packets by accessing the network traffic statistics maintained by the NIC. Col. 4, lines 5-12 disclose that the expert system 33 identifies traffic patterns for any number and combination of different network pattern criteria, for example predicting future traffic patterns according to the number of packets received and transmitted.

Thus, there being no disclosure that a NIC interface is selected based on a prediction of the amount of packets to be received, Gilbert in combination with Fukumoto does not reach the invention claimed in claim 1. In fact, Gilbert is substantially directed to reallocating network resources (i.e., memory resources) based on monitored traffic patterns. Gilbert never discloses that the line card

interfaces for transmitting the packets are selected on the basis of a predicted amount of packets to be received.

Therefore, even if a combination of Gilbert with Fukumoto would be obvious to the person of ordinary skill in the art, such person would presumably obtain a network monitor system according to Fukumoto, which employs line cards to count packets or bytes so as to control the communication data amount, and perhaps to dynamically reallocate network memory resources in accordance with predicted packet traffic as taught by Gilbert. Such a combination, even if motivated (which is not admitted by the Applicants), would not employ a statistic information collecting processor having means for analyzing header information imparted to the packets, and means for counting the amount of packets to be transmitted or received through the line card interfaces, or that would predict the amount of packets to be received by the plurality of line card interfaces from the header information and the amount of packets which have been analyzed, wherein on the basis of the amount of packets predicted, the line card interfaces for transmitting the packets are selected.

Similarly, the method recited in independent claim 12 is not suggested by any motivated combination of Fukumoto and Gilbert. The claimed method requires a step of predicting a number of packets to arrive at each of the plurality of line card interfaces in the future on the basis of the number of packets received by each line card interface and counted, and a step of selecting a line card interface for transmitting a transmitted packet on the basis of the number of packets predicted.

Similarly, independent apparatus claim 16 is patentable over the combination as asserted in the final rejection, at least with regard to the claimed statistic information collecting processor including means for analyzing header information imparted to the packets, and means for counting the amount of packets to be

transmitted or received through the interfaces, wherein the statistic information collecting processor selects a line card interface for transmitting the packet on the basis of the amount of packets counted.

Dependent claim 10 inherits the patentable features of independent claim 1, and thus is patentable at least on the basis of those features. Similarly, dependent claims 4-9, 11 and 13-15 inherit the patentable features of their respective independent claims, and are thus patentable as well, despite their rejection on other prior art grounds. The Applicants assert the separate patentability of each of these dependent claims, and reserve the right in the full scope of protection set forth in each.

The Applicants submitted an Information Disclosure Statement on August 3, 2007 but have not received an initialed Form PTO-1449 showing the Examiner's consideration of the references. The Applicants respectfully request that the Examiner include an initialed Form PTO-1449 with the next Patent Office communication. A copy of the Form PTO-1449 filed August 3, 2007 is enclosed for the Examiner's convenience.

The Applicants request the Examiner to acknowledge the claim for foreign priority and receipt of the certified copy filed on July 14, 2003. Priority is claimed to Japanese Patent Application No. 2003-005237, filed January 14, 2003, as indicated in the Declaration.

In view of the foregoing amendments and remarks, the Applicants request reconsideration of the rejection and allowance of the claims.

To the extent necessary, Applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, or credit any overpayment of fees, to the

deposit account of Mattingly, Stanger & Malur, P.C., Deposit Account No. 50-1417
(referencing attorney docket no. H-1100).

Respectfully submitted,

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